INDUSTRIAL STANDARDIZATION

and Commercial Standards Monthly

ASA

Published by the
AMERICAN STANDARDS ASSOCIATION
with the cooperation of the
NATIONAL BUREAU OF STANDARDS

VOLUME 4 NOVEMBER • 1933 NUMBER 11

AMERICAN STANDARDS ASSOCIATION
29 West Thirty-Ninth Street New York

ASA Member-Bodies

Am. Gas Association
Am. Home Economics Assn.
Am. Institute of Elec. Engineers
Am. Institute of Mining & Metallurgical Engineers
Am. Railway Association
Am. Soc. of Civil Engineers
Am. Soc. of Mechanical Engrs.
Am. Soc. of Sanitary Engineering
Am. Soc. for Testing Materials
Am. Transit Association
Assn. of Am. Steel Manufacturers Technical Committees
Cast Iron Pipe Research Assn.
Electric Light and Power Group:
Assn. of Edison Illum. Cos.
Edison Electric Institute
Fire Protection Group:
Associated Factory Mutual Fire Insurance Companies
Nat. Bd. of Fire Underwriters
Nat. Fire Protection Assn.
Underwriters' Laboratories
Institute of Radio Engineers
Internat. Acetylene Association
Light Metals Group:
Aluminum Company of America
Mfrs. Standardization Soc. of the Valve and Fittings Industry
Nat. Assn. of Mut. Casualty Cos.
Nat. Bureau of Casualty and Surety Underwriters
Nat. Electrical Mfrs. Assn
Nat. Machine Tool Bldrs.' Assn.
Nat. Safety Council
The Panama Canal
Soc. of Automotive Engineers
Telephone Group:
Bell Telephone System
U. S. Department of Agriculture
U. S. Department of Commerce
U. S. Department of Interior
U. S. Department of Labor
U. S. Govt. Printing Office
U. S. Navy Department
U. S. War Department

Officers

Howard Coonley	*President*
F. E. Moskovics	*Vice-President*
P. G. Agnew	*Secretary*
Cyril Ainsworth	*Assistant Secretary*
Arthur Kallet	*Editor*
Ruth E. Mason	*Assistant Editor*

The American Standards Association is organized to provide systematic means of cooperation in establishing American Standards to the end that duplication of work and the promulgation of conflicting standards may be avoided; to serve as a clearing house for information on standardization work in the United States and foreign countries; to act as the authoritative American channel in international cooperation in standardization work

Subscription price $4.00 per year (foreign $5.00); single copies 35 cents

The Relationship of the Government to Standardization Activities[1]

by

Daniel C. Roper,
Secretary of Commerce

The Government should not do what industry can do for itself; program of cooperation needs to be worked out

I want to express my appreciation to all who are here to discuss the best procedure in advancing the work relating to simplified practice, commercial standards, and safety codes.

Simplified practice represents the elimination of unnecessary sizes, varieties, and classifications in all stages of manufacture and as such provides significant economies in our production process. Commercial standards, representing the establishment of standards for quality, grades, and dimensional interchangeability, are prepared in cooperation with interested industries and approved in writing as their standard of practice by a satisfactory majority of each group. As an example of the work that has been done in relation to safety codes, the adoption of the National Electrical Code can be cited. This code has been prepared in cooperation with interested industries and public officials, federal, state and municipal, for the elimination of hazards in the installation and operation of electrical equipment. These three examples will illustrate for the public the great significance of this work relating to simplified practice, commercial standards, and safety codes.

In any program of this kind it is important to keep in mind the relationship that should exist between Government and business in working out the problems of business and industry. Government must be viewed as a sympathetic partner of business, not doing those things which business can do for itself, but giving its aid and cooperation to those programs in which the greater resources and facilities of the Government may be absolutely essential.

The question before us is not whether the commercial standardization work which the Government has initiated is important, or whether it ought to go on, for none of us questions the importance or necessity of its continuance. What we have to determine is how industry and Government can cooperate in the work, share its burden, and each contribute its proper part. What we have to determine is *which phases of the work can be adequately carried on by industry and to what extent the aid and participation of Government is indispensable.* We must also keep in mind the fact that budgetary limitations brought about by an imperative economic program must in many cases limit the extent to which the Government can contribute services at the present time. Furthermore, so far as any outside agency could usefully unite its efforts with the Department and aid the Department in shouldering the burden of one of its activities, the aid of such outside agencies should be welcomed, and their patriotic willingness to assist the Government in this time of national need should be encouraged.

For a number of years, as you all know, the Bureau of Standards has been engaged in the work to which I have referred with the object on the one hand of aiding industry in eliminating some of its wastes and thereby decreasing the burden on the consumer and on the other hand with the additional object of establishing standards which make it easier to maintain fair competition among producers and distributors and to promote intelligent purchasing.

Within recent months the importance of this work has come to the fore through the efforts of the Administration, as part of our emergency program, to persuade the industries of the country to raise the level of their practices and to rationalize their organizations by the adoption of commercial standards and safety codes. The commercial standardization work of the Bureau of Standards has proved of great value and interest in connection with these codes and the present situation presents a great opportunity for making this work of substantial benefit, both to industry itself and to the community.

When our Economy Committee came to examine

[1] Address delivered before the Conference on Standardization held in Washington, D. C. on October 19, 1933.

the budget of the Bureau of Standards it reached the conclusion that the commercial standardization work of the Bureau, because of its value and importance to industry, was a type of work which industry could properly conduct by its own efforts. It is in my opinion a good governing rule to follow that *whatever industry can satisfactorily do for itself should no longer be done at the expense of the taxpayers.* Under this rule and in view of needed governmental economy it was felt that the time had come to invite the American Standards Association to help carry the burden of the commercial standardization activity which the Government had hitherto been carrying alone. At my invitation the American Standards Association has generously come forward and offered its hearty cooperation with the Bureau of Standards in this standardization work.

We will have to determine first to what extent Governmental cooperation is essential, if essential at all, in the task to work out and execute a program of cooperation between the Bureau and the Association to go on with the work as rapidly and effectively as possible. Before working out the details of such a program we wish to obtain the assistance and considered views of all who have shown interest in this splendid work hitherto carried on here. It is for this reason that we have invited you here today to obtain a full expression of your views and to obtain the benefit of your experience in connection with the commercial standardization work of the Bureau. I feel that after obtaining your assistance in this way the Department will be in a much better position to work out its program of cooperation to the full and complete satisfaction of all parties concerned.

The Position of the ASA in the Standardization Movement[1]

by

Howard Coonley, *President*
American Standards Association

Set-up of ASA enables it to continue work transferred from Bureau; preparations for transfer already under way

Dr. Dickinson has scheduled me for a few words on the work of the American Standards Association and the broadened activities which it has undertaken as a consequence of the request of Secretary Roper.

The American Standards Association was greatly surprised when on June 14 Dr. Briggs presented the proposal on behalf of the Secretary of Commerce that there be transferred to the Association the essential activities of five administrative units of the Bureau of Standards, including the work on simplification, commercial standards, and building codes. We had had no previous inkling that such a step had been even contemplated.

After careful consideration our Board of Directors accepted the responsibility, and the arrangement was further developed in correspondence between the Secretary and myself. This correspondence was released to the public by Secretary Roper in his press conference of July 19, 1933. The undertaking, as outlined in this correspondence, was clearly summarized by the Secretary in the following terse paragraphs in his public announcement.

> "Actuated by economy requirements and the desire to place the responsibility for a unified national industrial standardization program in a single national organization representative of both governmental and private interests, arrangements have been completed to transfer certain of the commercial standardizing activities of the Bureau of Standards to the American Standards Association in New York.
>
> "The task of turning over this work of the Divisions of Simplified Practice, Building and Housing (work on the building and plumbing codes), Specifications, and Trade Standards, and the Section of Safety Standards, will be effected

[1] Address delivered before the Conference on Standardization held in Washington, D. C., October 19.

gradually under the direction of the Secretary of Commerce and the Director of the Bureau of Standards."

I think it only fair to say that since the writing of this letter by the Secretary a new element has been injected into the situation. I refer, of course, to the development of the work of the NRA which will undoubtedly require the inclusion of standards in the stabilization section of many codes of fair competition. This may well force the modification, temporarily, of the carrying out of the original program.

Organization and work of ASA

Those not familiar with the ASA and its work may welcome a very few words about it.

The ASA is the national clearing house for industrial standardization. It is organized in the form of a federation of national trade and technical associations and government departments. All its work is based upon the principle that a national standard must represent a consensus of those concerned with its scope and provisions, and that all groups having a substantial interest in it have a right to representation on the body dealing with the subject matter of the standard.

Nearly 3,000 experts representing some 500 national associations are working on the various ASA technical committees. To date the Association has approved 249 standards and 173 others are under way.

The Association is financed through dues of its Member-Bodies and dues and subscriptions from its Company Members.

As there has been some misunderstanding on the point, I should like to emphasize the fact that participation in the work of technical committees does not involve financial obligation in any way. While this has made our financing more difficult, the ethical soundness of the plan has brought strength to the entire work.

Organized originally to deal with standards for the materials which corporations buy from each other, the field of activities has steadily been broadened in response to demands, until it now covers an extremely broad field of subjects.

One of the newer and one of the most important of these fields is that of the goods purchased by the ultimate consumer. A few such projects undertaken by the ASA, and more by the Bureau of Standards and other agencies, are bringing the technique of standardization into the general retail field. I think we may look for tremendously important developments along these lines, since this movement constitutes a fundamental attack upon some of the most deep-seated defects of our distribution system.

The ASA is a member of the International Standards Association and serves as the official channel for this country for international cooperation with similar national standardizing bodies in each of twenty-one foreign countries. In this way, the ASA acts as the clearing house for the distribution of information about standardization both in the United States and abroad.

The Government's part in the ASA

The Federal Departments of Agriculture, Commerce, Interior, Labor, Navy, War, and the Government Printing Office and the Panama Canal officially share, as Member-Bodies, in responsibility for the maintenance and direction of the work. Forty-three departments and bureaus are participating in the technical projects. Speaking of the part of Government in the organization and work of the ASA, Secretary Roper recently remarked that the ASA is a sort of quasi-governmental body.

The state governments are also participating in numerous projects, and are, for example, making extensive use of American Standard Safety Codes as the basis of their safety regulations.

Progress in complying with the Secretary's request —continuity of service

Following completion of preliminary arrangements for transferring a considerable part of the commercial standards and simplified practice work of the Bureau of Standards to the American Standards Association, active work is now under way for the permanent financing of the enlarged program. In the meantime sufficient funds are available for the ASA to start the work.

The first additions to the ASA staff to help maintain continuity of service in the project work have been made with the engagement of two engineers of the furloughed staff of the Bureau. For the time being they are making their headquarters at the Bureau.

The methods followed by the Bureau in the simplification work and in the commercial standards work, and by the ASA in its conference method are identical, thus providing easy adjustment. So far as feasible, conferences on projects will be attended by members of both the ASA staff and the Bureau's skeleton staff.

The projects being worked on are mostly ones already started by the Bureau and are being selected and developed in the closest cooperation with the skeleton staff of the Bureau.

The ASA is now prepared, with the cooperation of the Bureau, to approve and to publish standards as "American Simplified Practice Recommendations," or as "American Commercial Standards.

Beginning with the July issue, the Bureau's journal, COMMERCIAL STANDARDS MONTHLY, has at the request of Dr. Briggs been combined with the ASA's journal, and the combined journal is being published by the ASA, with the cooperation of the Bureau, under the combined title of INDUSTRIAL STANDARDIZATION AND COMMERCIAL STANDARDS MONTHLY.

While many details of the cooperative relationships remain to be worked out, the ASA is prepared to follow through on both Simplification and Commercial Standard projects with complete continuity from any stage in which the project happens to be.

It is the policy of the ASA that the groups concerned with each standard should decide whether there is to be certification or labeling; and that any such program should be effectively supervised by a properly qualified body; *e.g.*, a trade association, or a testing laboratory, operating under proper administrative management.

The Bureau's research work

In closing these remarks I should like to add a few words on the importance to the standardization movement of the work of the Bureau of Standards in research and in the development of methods of test and measurement. I think the particular field in which a vast amount of work is needed is that of goods purchased by the ultimate consumer. Most sound standardization depends ultimately on measurement, but unfortunately only meager progress has been made in bringing the quality of the things we use in everyday life under measurement control. The Bureau is in a particularly good position to do a vast amount of such work.

The ASA is in emphatic accord with a remark made by Dr. Briggs in originally presenting the Secretary's proposal to our Board of Directors. Dr. Briggs stated that it had been the experience of the Bureau that the work being transferred had benefited greatly from the technical advice and cooperation of the research staff of the Bureau. He hoped that this intimate relation between the research work and the industrial standardization work would be continued and extended.

In closing I should like to draw attention to the extreme importance of the fullest cooperation between all elements in our economic structure, at a time when we are looking to new plans and policies to lead us out of the mire of depression. I pledge the earnest efforts of the ASA to play a constructive part in the Administration's program.

Relations Between Bureau of Standards and ASA Discussed at Conference

The conference called by the Department of Commerce in Washington on October 19, 1933, to consider the cooperative relationships between the Bureau of Standards and the American Standards Association in connection with the transfer of certain activities of the Bureau of Standards to the ASA was attended by approximately 150 persons. About 15 of the Member-Bodies of the ASA sent one or more representatives.

Secretary Roper, in his remarks which opened the conference, reiterated the statements made in his correspondence of last July transferring the work to the ASA that it was his belief that the Government should not do those things which business is able to do for itself, but should give its aid and cooperation to those programs in which the greater resources and facilities of the Government may be absolutely essential. Whatever industry can satisfactorily do for itself should no longer be done at the expense of the taxpayers. He said that it was in this spirit that he had asked the ASA to take over this work, and he expressed the hope that the conference would bring out facts which would assist in developing plans for carrying forward the cooperative efforts of the Bureau and the ASA in the field of standardization.

Mr. Coonley outlined the history of the transfer of the Bureau's activities to the ASA, and the steps that had been taken to carry on this work. He stressed the representative nature of the ASA and its present position in the general standardization movement, both nationally and internationally. He recognized the fact that the Department of Commerce might properly consider it advisable, because of NRA problems, to proceed more slowly in the transfer of this work than at first thought necessary, but he felt assured that it was the proper move by the

Government to transfer the standardization problems of industry to industry for solution.

Many representatives of trade associations requested that the work transferred to the ASA be returned to the Bureau of Standards. A number of these requests seemed to result from a sincere belief that the prestige and influence of the Federal Government were necessary to the successful pushing forward of their standardization programs. This, and the great emphasis placed on the necessity for standardization in the field of ultimate consumer goods, definitely emphasized the strong belief on the part of some that government control in such fields was essential.

Several speakers who thought that the work should be under the Government proposed that it should not be in a technical bureau like the Bureau of Standards, but should be under the NRA, or the Department of Commerce, or some other more general organization. Among the industries whose representatives supported the action of Secretary Roper were several of the large ones, such as petroleum, light and power, gas, electrical manufacturers, automobile, steel, etc. They believed that a unified national standardization movement should be centered in a single national organization representative of both Government and industry—to which the contribution of the Bureau of Standards should be chiefly from its rich technical resources.

Several representatives of the Member-Bodies of the ASA presented facts to show that the Government is fully represented in ASA work; that, as pointed out by Secretary Roper, the ASA could be considered as a quasi-governmental activity because of the membership of seven government departments in the ASA, and stressed the need for government cooperation in the development of standards and simplification recommendations, particularly in the field of research and testing. They also stated that the ASA will be able to finance the undertaking; and pointed out the fact that financial support by individual groups is not essential to participation in the technical work.

Dr. John Dickinson, Assistant Secretary of Commerce, presided throughout the conference.

Dr. Dickinson's closing statement, in part, follows:

Dr. Dickinson's statement

I think there is one point which we have all along assumed in our thinking about this subject—one point that we have regarded as settled, and that is the cooperation between the American Standards Association and the Bureau of Standards and the Government. The question that remains to be decided is the measure and the degree of that cooperation.

The Secretary in his remarks spoke of the transfer of certain of the activities of the Bureau of Standards to the American Standards Association, and what we are trying to determine is what those certain activities are. What is to be the scope of the transfer and what are the activities to be transferred?

It seems to me that in the discussion here today there have developed a great many points of agreement—that on the whole the considerations that have been brought forward dovetail into one another. The emphasis has been placed and properly placed upon industrial self-government. I think that is the keynote of the policy of the Administration in every direction. It is the policy which is activating it not merely because of the desire to economize but also because of the feeling, which was so well expressed by one of the speakers, of the educational value of self-government, which is immeasurably great; that if industries are to be orderly there must be an opportunity for them to order themselves.

The greatest experiment in industrial self-government which the Administration is putting into effect is, of course, the National Recovery Administration, and if we look to that Administration we get the outlines and the constitution of what industrial self-government must be. Industrial self-government must be self-government under the government.

The National Recovery Act was drafted and it has been administered with the fullest attempt to develop industrial self-government subject to the necessary final control of the Government itself, and the Government must place its stamp of approval upon the codes prepared for the various industries before they become effective. In order that the Government may intelligently give that stamp of approval it reaches back a considerable distance into the process of forming the codes, travels along with them, watches them, makes suggestions, and finally when the completed product is turned out, gives its approval. In this process, I think we have the blue print of what is necessary in any process of industrial self-government; we have the indication of the basic lines of governmental participation that is needed. As we go forward and go about the further working out of the details of the relationship between the Bureau of Standards and the future of standardization work in collaboration and cooperation with the American Standards Association, which they have so generously offered, it seems to me that the message which I should take away from the discussions of this meeting is that after all

something of the same blue print needs to be followed here. There seems to be general agreement—at least I have heard no dissent—that if the Government is going to participate at all by stamping the product with its approval it must reach back some distance and in some way or other participate in the thing which it is to approve. That participation, of course, may take many forms, and what those forms are must be worked out in detail. On the other hand the Government, I think, can be relieved from a great deal of work which is not connected with this function of ultimate authorization. All of those matters which do not require government participation, which do not in the end require any stamp or sign of governmental approval—the government is wasting the taxpayers' money when it meddles in those things. However, where its final approval is felt to be necessary for the protection of industry or business, why, then there must be some degree of supervision and participation reaching back behind the approval. That, it seems to me, might be described as the blue print or sailing chart for the working out of the details of this future relationship—the need for governmental supervision and the desirability from every point of view of stimulating industrial self-help, industrial self-government, in every direction.

Crittenden Appointed Assistant Director of Bureau

The appointment of E. C. Crittenden, chief of the Division of Electricity of the National Bureau of Standards, as assistant director of the Bureau in charge of research and testing was announced on October 13.

Mr. Crittenden will continue his duties as head of the Electrical Division. He has been with the Bureau of Standards since 1909 and has been chief of the Electrical Division since 1921.

Mr. Crittenden has done extensive work in photometry. His researches on flame and incandescent lamp standards, on which he has published many papers, have been an important factor in the development of national and international agreements in this field, as also in improving the accuracy of laboratory and commercial measurements—all of which necessarily depend upon the fundamental standards.

Mr. Crittenden is a representative of the U.S. Department of Commerce on the ASA Standards Council, the Electrical Standards Committee, the U. S. National Committee of the International Electrotechnical Commission, the special USNC committee on electricity and magnetic units and quantities, and is a representative of the Bureau of Standards on the Sectional Committees on Hard-Drawn Aluminum Conductors (C11) and on Definitions of Electrical Terms (C42).

Mr. Crittenden has been prominently connected with the work of the International Commission on Illumination and of the International Electrotechnical Commission, and in the cooperative work of national laboratories of the various countries on electrical and magnetic units and standards. He is at present chairman of the Symbols, Units, and Nomenclature Committee (SUN Committee) of the American Section of the International Union of Pure and Applied Physics. He is president of the Optical Society of America and a past president of the Illuminating Engineering Society and of the Philosophical Society of Washington.

Standards Reduce Duplication

The following editorial is reprinted from "Power":

Large power systems and industries maintain extensive spare parts departments. Frequently these have grown as the plants expanded, until they represent very large investments in thousands of different pieces of equipment and materials, without serious thought being given to an efficient stores organization. Unless some standard method is adopted for specifying, ordering, and listing each piece of equipment, much duplication is likely to occur and the investment in stores will be unnecessarily high, as experience has shown in many instances.

Using several names to designate a single item is an outstanding cause of duplication of parts and of confusion in cataloguing available material and identifying it when ordered. If all material is purchased on a standard specification form and requisitioned in a similar way, purchasing agents and store keepers can then catalog each part in stock so it can be easily identified and mistakes prevented. Such a system will also avoid ordering more parts that are already in stock and will promote efficient handling of materials between store rooms and places of use.

Many parts such as carbon brushes, bolts, pipe, and fittings afford opportunity for reducing their number in stock by standardizing on certain dimensions, types, and other features.

When engineers are considering ways and means of reducing operating costs they should not ignore the lowly stores department. A dollar rescued from spare parts is worth just as much as one saved from the coal pile by improved operation.

Shrinkage Standard for Woven Cottons Submitted for ASA Approval

Approval by the American Standards Association of a standard for pre-shrunk woven cotton fabrics has been requested by the Textile Shrinkage Conference of the New York Board of Trade. The establishment of standards for the permissible shrinkage of fabrics labeled pre-shrunk is considered the most important step yet taken in the protection of consumers by means of standards, and also in the cleaning up of a chaotic spot in the distribution of textile products.

The proposed standard would set up four grades of pre-shrunk fabrics, from AA to C. Pre-shrunk woven cottons marked "AA Shrinkage" would be guaranteed against additional shrinkage of more than one per cent in either length or width. Although the lowest grade would permit five per cent shrinkage, no fabrics below Grade B with a permissible shrinkage of three per cent would be labeled "Pre-shrunk."

In the absence of standards, consumers have found it impossible in the past to place any reliance on labels or statements indicating that piece goods, a man's shirt, a dress, or any other textile product was "pre-shrunk." While such labeling may have indicated that pre-shrinking actually took place, the amount of pre-shrinkage may have been only a small fraction of the total natural shrinkage of the material, making the label meaningless as a guarantee against further excessive shrinkage.

While the standard submitted covers only woven cottons for the manufacture of garments and cotton piece goods to be sold to the consumer, studies are now in progress to prepare the way for shrinkage standards applicable to textiles other than cotton.

In order to afford manufacturers, distributors, and consumers a common basis upon which to judge conformance to the proposed allowable shrinkages, the standard method of testing for shrinkage given in Federal Specifications for Test Methods for Textiles, designated as CCC-T-191 of the Federal Standard Stock Catalogue, Section IV, Part 5, is required. This method of test is similar to shrinkage tests that have been developed and published by the A.S.T.M. and the American Association of Textile Chemists and Colorists. Results of shrinkage tests by the recommended methods are reported to be comparable with those obtained by following the procedure of the test developed by the Laundryowners' National Association of the United States and Canada.

A general conference to consider the acceptability of the proposed standard will be held after the organizations representing the manufacturing, distributing, and consuming interests concerned have had an opportunity to consider the standard and make recommendations. The development of the work in the Textile Shrinkage Conference of the New York Board of Trade is outlined in the following letter of submittal addressed to the American Standards Association:

> On behalf of the Textile Shrinkage Conference of the New York Board of Trade, I am herewith submitting a proposed standard concerning permissible shrinkage for woven cotton fabrics. This standard was adopted by resolution at the last meeting of the Textile Shrinkage Conference held in New York on October 26, 1933, and it was further unanimously agreed that the standard should be submitted to the American Standards Association for approval. An official copy of the resolution, containing the standard, is being sent to you by the secretary of this Conference.
>
> For your further information, I wish to advise that the Textile Shrinkage Conference of the New York Board of Trade was organized early in September, 1932, to develop standards for shrinkage of all textile materials. The New York Board of Trade, organized in 1873, is a civic organization and since its inception, its function has been to promote the various trades of the United States, and especially of the State and City of New York. The textile shrinkage project has been a matter of discussion at previous symposia held by the New York Board of Trade, at which time responsible leaders in this subject had been invited to express their opinions. The personnel of the Conference represents the producing, distributing and consuming interests in the textile field and the members of this committee, appearing on the stationery, will show the firms and associations cooperating in this work. I further wish to advise you that the following national associations have appointed their representatives:
>
> United States Testing Company—J. E. Bell
> Union-Made Garment Manufacturers Association—Oscar Berman
> American Association of Textile Chemists and Colorists—Dr. Howard D. Clayton
> Wholesale Dry Goods Institute—Flint Garrison

United States Institute of Textile Research—H. Grandage
Laundryowners' National Association of U. S. & Canada—George H. Johnson
National Retail Dry Goods Association—Frank Stutz
Mellon Institute of Industrial Research—Jules LaBarthe, Jr.
General Federation of Women's Clubs—Julia K. Jaffray

The standard, itself, has been a matter of discussion with the Conference and its various committees and has been favorably considered by other groups interested in the shrinkage of woven cotton fabrics.

We shall be pleased to assist you in any way to further this work and will be very glad to forward any information that you may desire.

We would call your attention to the importance of this standard as a method of decreasing consumer dissatisfaction by removing complaints with regards to the shrinkage of woven cotton fabrics.

Very truly yours,
RAY C. SCHLOTTERER,
Secretary.

The proposed standard follows:

Proposed Standard for Shrinkage of Woven Cottons

Group 1

Rule 1—Grade AA Shrinkage—Woven cottons shall not be designated by a designation *Grade AA Shrinkage*, if when tested by the method hereinafter described they shrink more than one per cent in either length or width direction.

Rule 2—Grade A Shrinkage—Woven cottons shall not be designated by a designation *Grade A Shrinkage*, if when tested by the method hereinafter described they shrink more than two per cent in either direction.

Rule 3—Grade B Shrinkage—Woven cottons shall not be designated by a designation *Grade B Shrinkage*, if when tested by the method hereinafter described they shrink more than three per cent in either direction.

Rule 4—Grade C Shrinkage—Woven cottons shall not be designated by a designation *Grade C Shrinkage*, if when tested by the method hereinafter described they shrink more than five per cent in either direction.

Rule 5—No woven cotton shall be designated by the term "pre-shrunk" if when tested by the method hereinafter described they shrink more than three per cent in either direction.

Group 2

Rule A—The designations shall be legibly stamped on or firmly affixed to the material and shall appear on all invoices, labels, or marks relating to such goods.

Rule B—Woven cottons coming under Rule 1 shall be legibly stamped with, or have firmly affixed thereto, a designation reading "Grade AA Shrinkage."

Rule C—Woven cottons coming under Rule 2—Shrinkage, shall be legibly stamped with, or have firmly affixed thereto, a designation reading "Grade A Shrinkage."

Rule D—Woven cottons coming under Rule 3—Shrinkage, shall be legibly stamped with, or have firmly affixed thereto, a designation reading "Grade B Shrinkage."

Rule E—Woven cottons coming under Rule 4—Shrinkage, shall be legibly stamped with, or have firmly affixed thereto, a designation reading "Grade C Shrinkage."

Rule F—The term "Shrink-proof," "Full-shrunk," "Non-shrinkable" or the use of similar terms implying absolute conditions shall not be used, but a term such as "Pre-shrunk" indicating that the cloth has undergone a pre-shrinking process may be used provided the material conforms with the requirements as enumerated under Rules 1, 2, or 3, and further provided that it is followed by the designation indicated in Rules B, C, or D, and further provided that it shall not appear in type larger than that used for the designation.

Rule G—The method hereinafter described shall be that contained in CCC-T-191 of the Federal Standard Stock Catalogue, Section IV, Part 5, of Federal Specifications for "Textiles; Test Methods" which method follows that of the American Association of Textile Chemists and Colorists, and the American Society for Testing Materials.

Editorial Changes in Standard for Methods of Sampling Coal

The American Society for Testing Materials, as sponsor for Standard Methods of Sampling Coal (X1-1921) (A.S.T.M. D 21-16) has advised the ASA office of several changes in wording in this standard. These revisions, which are entirely editorial in nature and which have been made in order to clarify the wording used in certain sections in the standard, become effective immediately.

Division of Trade Standards

by

I. J. Fairchild, *Chief*
Division of Trade Standards
National Bureau of Standards

The work of the Division of Trade Standards and its underlying philosophy; the effect of NRA on the production of quality standards

This article is the fourth in the series describing the work of five Divisions and Sections of the Bureau of Standards, part of which is being transferred to the ASA under a cooperative arrangement between the two organizations.

Those who are following the evolution of the National Recovery Administration have noted an increasing tendency toward the stimulation of quality standards as a basis for fair trade practices in industry and for the protection of the ultimate consumer. This stimulation comes from two sources: First, the producer groups desire to restrain the chiseler from undercutting quality as well as price, for they realize that the undercutting of quality is much more insidious and damaging to an industry than simple price cutting; second, the consumer groups through their spokesmen at the public hearings are demanding that NRA codes incorporate quality standards and direct certification from seller to buyer as a means of protecting the consumer from exploitation in the direction of debasement of quality.

It may be well at this point to review briefly the work of the Division of Trade Standards in the establishment of Commercial Standards to determine how its underlying philosophy, procedure, and product fit into the NRA picture.

The mails are constantly bringing to the Bureau of Standards, to the Better Business Bureaus, to consumer groups, and to trade associations letters from bewildered buyers, harassed merchants, and anxious manufacturers asking for standards, specifications, and buying guides with which to sift the wheat from the deceptive chaff in modern merchandise. The general lack of readily discernible comparability of competing grades and qualities tends to confuse the buyer, to make price comparisons impracticable, and to render unreliable any conclusions resulting from practical experience.

The multiplication of grades and qualities continues, to the confusion and consternation of the consumer who is expected to accept at face value adulatory advertising, even though he is given no definite warranty of quality which might be used later as a basis for justifiable complaint.

The most natural remedy is the specification method of purchase as utilized increasingly by contract buyers, and by far the greater number of specifications in use today are those prepared by, or for, the large purchasers who normally buy on specifications. The usual specification covers purchase requirements and tests to suit certain specific uses, with little or no concern for what may happen to rejected items or grades outside the limits, either above or below, the specification.

A little study of almost any item normally purchased on specifications by contract buyers will reveal that specifications recognized by the Federal Government or by various technical societies can not be universally accepted as representing the general quality of that particular item as it appears on the regular market; that it is not safe to assume that industry is prepared to promote items meeting such specifications on a large scale, since the rejects resulting from the general application of such a specification may be so large as to constitute an unbearable burden; and that the seller may, quite reasonably, hesitate or refuse to certify to the buyer that the goods delivered meet all the requirements of such a specification.

Commercial Standards, on the contrary, are established not only to serve as a basis for purchase, but likewise as a basis for marketing for the entire industry, and consequently, must either cover all

the grades necessary in that industry, or form a part of a broader plan for marketing the essential grades, both standard and substandard. Hence, commercial standards, unlike most specifications, are established for the benefit of all divisions of a given industry rather than for just the large-quantity buyers. The record of standards which have been incorporated, or presented for incorporation, in the NRA codes as a basis for fair competition confirms this statement.

The basic question presents itself: How far does Government go in the direction of quality standards? Patents, trade marks, and copyrights are keystones to certain phases of all commerce, and a single principle may be cited as underlying governmental participation in each of these contacts with private enterprise. The Government, upon application and a satisfactory presentation of the facts, subject to suitable review and adjustment, provides a starting point (in the form of a patent, trade mark, or copyright) as a basis from which the company, or the individual, may proceed in defending himself against unwarranted encroachment or misrepresentation of competitors. The holder of the patent, trade mark, or copyright must discover for himself infringements or encroachments; he must find the necessary evidence, initiate action in the courts, and prove his case, before a remedy is granted.

In that field of commerce where neither health nor personal safety are involved, we have proceeded on this same principle as a limitation of governmental function with regard to quality standards. That is, on request of representative organizations or groups, we have cooperated in the adjustment and establishment of quality standards as a nationally recognized and voluntary basis for grading, inspection, testing, acceptance or rejection, and certification and labeling of staple goods entering into daily trade. In other words, in a manner similar to that used for Simplified Practice we have assisted in establishing yardsticks which the prudent buyer or seller may employ, on his own initiative, as a safeguard for his own protection in business.

Both the procedure for the establishment of commerial standards and the guarantee labeling plan, voluntarily adopted by many industries in making such standards effective, are based upon the same principle. With a mere handful of employees, it has been found practicable through this method to direct procedure; to guarantee integrity of the process; to see that every organization or individual directly concerned is given an opportunity to be heard; to provide, for the benefit of the consumer, a practical outlet for results of Federal research data or tests; to insure a full consideration of laboratory suggestions in the process of drafting or adjusting the commercial standard; and to confine the promulgation to those standards really representing the combined thought of the organizations, companies, and individuals directly concerned, whether consumers, distributors, or producers.

It will be seen that the objective of the Division is to assist industries, through methods of self-government, to put into practical use results of test data and research and the best practices of the industry through the establishment of a voluntary commercial standard as the recognized basis for inspection, grading, acceptance, and certification of quality of the commodity. A commercial standard may be initiated by any element of an industry, and no matter whether initiated by the manufacturers, distributors, or users, it must not only receive the full support of all groups, but these groups must have an active part, through a public forum, in adjusting the proposed draft and making it effective throughout the industry.

That all groups do participate actively is recorded in writing by individual companies and organized groups of companies on a uniform acceptance form. This form reads in part: "We accept the Commercial Standard dated —— as our standard of practice in the production, distribution or use of the named commodity."

The accompanying alphabetical list of commercial standards accepted to date indicates the variety of commodities covered, and it indicates further that the number of items of consumer goods which have been thus standardized for quality certification is very small indeed compared to the number which are under consideration in NRA codes.

However, it seems to be the impression among those who are daily associated with NRA code work that the Simplified Practice Recommendations and Commercial Standards fit into the codes as a basis for fair trade practice with less adjustment than other broad groups of standards.

There is a growing feeling that the necessity of quality control in the future will be much greater than ever before; that the consumer should know the exact character of the goods he has under consideration with the least amount of trouble or doubt for there can be no comparability of prices without comparability of quality; and it is visualized that quality standards must eventually form the basis for industrial and economic stabilization.

It is also visualized that the hub of the wheel on which industrial and economic stabilization will turn will be the guarantee label through which the seller certifies the quality of the article to conform

to a definite standard, and that the axle on which this wheel will turn will be the ability of the buyer to distinguish between bogus and bona fide guarantee labels, or in other words the persistence with which the integrity of such labels is maintained.

An examination of over 200 NRA codes, both pending and closed, reveals a large number which incorporate, generally by reference (or indicate an intention to incorporate within a definite time limit) standards of quality as a basis for certification of quality to the consumer. The Consumers' Advisory Board of the NRA is now challenging all codes which do not provide for standards covering grading, physical or chemical requirements, methods of test, and labeling as a basis for certification of quality. It is conceded in every quarter that the NRA public hearings provide no adequate opportunity for the formulation, or adjustment, or determination of status of standards and therefore such quality standards must be developed and their status determined outside of the code hearings.

The National Industrial Recovery Act itself makes clear that the Government must accept full responsibility for all of the Code requirements, which means that the Federal Government must itself review or visé the standards which are incorporated into NRA codes before they can be accepted.

In conclusion, it may be said that whereas the standardization projects handled by the Division of Trade Standards heretofore have been confined to those presented voluntarily by industries, it seems probable through the stimulation of NRA, that the immediate urgent need for similar standards for consumer goods will tax not only the capacity of the Division of Trade Standards, but also the capacity in this direction of the American Standards Association, its Member-Bodies, and the interested trade associations. As the writer visualizes the situation, it will be necessary in the future for the interested trade associations, or the distributor and consumer organizations, to prepare the tentative drafts of such standards and to feed them for adjustment through the various established channels with the object of securing national recognition. As one of these channels, the Division of Trade Standards is eager and anxious to assist toward that desirable end.

List of Commercial Standards

Copies of these standards may be obtained from the Superintendent of Documents, Washington, D. C. or from the office of the American Standards Association. The price per copy is five cents except where another price is given.

Apple wraps	44-32
Blankets; wool and part wool	39-32
Blouses, shirts, and junior shirts, and waists (button-on); boys'	14-31
Board; fiber insulating	42-32
Bone plates and screws; steel (10 cents)	37-31
Cloth; cotton, for rubber and pyroxylin coating	32-31
Cloth; wire, Fourdrinier (second edition), (free from the Bureau of Standards)	36-33
Colors for sanitary ware (20 cents)	30-31
Commercial Standards Service and Its Value to Business (10 cents)	0-30
Drill fittings; diamond core (second edition)	17-32
Feldspar	23-30
Gage blanks; plug and ring, plain and thread (15 cents)	8-30
Gloves; Latex, surgeons'	41-32
Gloves; rubber, surgeons'	40-32
Golf shafts; hickory (10 cents)	18-29
Hardware; builders' nontemplate (10 cents)	22-30
Hardware; builders' template (second edition)	9-33
Hosiery lengths (free from Bureau of Standards)	46-33
Joints; ground glass, interchangeable (15 cents)	21-30
Leather; bag, case, and strap	34-31
Lining; closet, red cedar (aromatic)	26-30
Mirrors; plate glass	27-30
Mopsticks	2-30
Oils; fuel	12-33
Oils; sulphonated, grading of	43-32
Pajamas; men's	15-29
Patterns; dress	13-30
Patterns; foundry, wood (second edition) (10 cents)	19-32
Pipe nipples; brass	10-29
Pipe nipples; steel (10 cents)	5-29
Pipe nipples; wrought-iron (second edition)	6-31
Plumbing fixtures; porcelain (all-clay) staple (10 cents)	4-29
Plumbing fixtures; vitreous china, staple (10 cents)	20-30
Plywood; Douglas fir	45-33
Plywood (hardwood and Eastern red cedar) (10 cents)	35-31
Screw threads; special (15 cents)	25-30
Screw threads; standard (10 cents)	24-30
Seats; (for) water closet bowls, staple	29-31
Sheeting; rubber (hospital)	38-32
Shingles; wood (second edition) (free from Bureau of Standards)	31-33
Solvent; dry-cleaning (Stoddard solvent) (10 cents)	3-28
Tents; cotton-fabric, tarpaulins and covers (10 cents)	28-32
Thermometers; clinical (second edition)	1-32
Underwear; knit (exclusive of rayon) (15 cents)	33-32
Unions; malleable iron or steel, screwed, standard weight	7-29
Wall paper	16-29
Yarns; cotton, mercerized, regain of	11-29

Publish Standard for Blooms, Billets, and Slabs

The Standard Specifications for Carbon-Steel and Alloy-Steel Blooms, Billets, and Slabs for Forgings (G9.1-1933) (A.S.T.M. A 17-29), recently approved as American Standard by the American Standards Association, have been published by the American Society for Testing Materials. Copies may be purchased from the A.S.T.M., 1315 Spruce Street, Philadelphia, or from the American Standards Association at 25 cents each. The usual discount is available to ASA Members.

International Meeting on Rims, Tires, and Valves

First meeting of International Standards Association technical committee considers unification of standards for rims, tires, and valves

The first meeting[1] of the new International Standards Association Technical Committee on Rims, Tires, and Tire Valves was held at London in July of this year. Delegates from Austria, Czechoslvakia, Germany, Great Britain, Italy, and the United States were present, with an unofficial delegate from France attending as an observer. Excellent arrangements for the meeting had been made by the Institution of Automobile Engineers (Great Britain), which acts as the secretariat for the committee.

In the spring of 1933 the Society of Automotive Engineers and the Tire and Rim Association had agreed to cooperate through the American Standards Association in the work of the ISA committee. K. D. Smith, technical superintendent, B. F. Goodrich Company, Akron, was appointed by these two organizations, jointly, as the American representative on the committee, with R. T. Brown, Goodyear Tire and Rubber Company (Great Britain) Ltd., as his alternate. Mr. Brown and John Gaillard, mechanical engineer, American Standards Association, attended the meeting of the committee on behalf of the ASA.

During the discussion of the program for the meeting, the American delegate noted that airplane wheel equipment had been deleted from the agenda, and recommended that it be reinstated. As a result, it was decided that the work of the committee should include rims and tires for all purposes and that arrangements should be made to cooperate with ISA committee 20 on Aeronautics, which is also working on airplane wheel equipment.

Three experts representing the English, French, and German industries were appointed by the committee to draw up a glossary of technical terms in the three languages.

Designation of equipment will continue to be given in figures, with inch and metric dimensions in separate columns.

By unanimous vote, tires were classified into three groups:

Group 1—Solid tires and pneumatic tires of beaded-edge type for private cars and commercial vehicles. This group is not to be a subject of international discussion.

Group 2—All tires in popular demand today. Efforts are to be directed to securing agreement on rim dimensions essential to the ready interchange of tires.

Group 3—Tires, such as the range of extra-low-pressure tires for private cars, which are still in their infancy. An early interchange of information is to be arranged, which should lead to the establishment of more complete standards and tend to prevent confusion and overlapping.

Discussion of more specific subjects resulted as follows:

Well base rim, 17 inch diameter and over.—The general contour dimensions of rims 17 inches and over show certain small differences between the American and British proposals which do not affect the interchangeability of tires on those rims. The differences were referred to the two countries concerned to ascertain whether unified proposals can be formulated. Any unified proposal will be acceptable to all of the other delegates.

Seat diameters of rims 17 inches and over.—Since certain important differences existing between the British and American proposals might affect interchangeability of tires on these rims, the differences were referred to the national organizations of the two countries for possible agreement on maximum and minimum tire-seat diameters.

Size and location of the valve hole for sections 2.50 to 4.00, inclusive.—Great Britain, and all other countries represented, except the United States, had adopted a hole with a diameter of 0.5 inch located in the side of the well. In the United States, a valve hole with a diameter of ⅝ inch is used, located at the intersection of the bottom and the side wall of the well. The American delegate agreed to submit the British proposal to his organization for consideration.

Well base rims not exceeding 16 inches diameter.—The delegations agreed to recommend to their respective national bodies the adoption of the Recommended Practice, 1934, as published in the Tire and Rim Association *Yearbook*, 1933, pages 12-16. Optional contours of the well, applied to all sections of rims, are to be permitted or not, at the discretion of each country.

[1] This article is an abstract from the minutes of the meeting.

Flat base rims for private cars.—The conference recommended that these should not be made the subject of international discussion, since their use for private cars is declining rapidly.

Flat base rims for commercial vehicles.—The contours used in the Tire and Rim Association *Yearbook*, 1933, pages 38 and 39, were adopted for international study, and the designations adopted by the Tire and Rim Association were recommended. The new designation should be given first in parentheses, followed by the old; for example, (4.33R) 6". The use of rim diameters in all inch sizes greater than 15 inches was not recommended.

Pneumatic tires for private cars, commercial vehicles, and agricultural tractors, with particular reference to extra-low-pressure tires.—The maximum dimensions recommended in the American proposal were referred to the national standardizing bodies to ascertain whether they can be recommended as a program for future guidance.

Fit of low-pressure tires on rims 17 inches in diameter and upward for private cars.—The American proposal on this subject was also referred to the national standardizing bodies.

Extra-low-pressure tires for private cars.—The American proposal was referred to the national bodies for their study, with the exception of the 3.00D rim. It was recommended that this size be replaced by the 3.25D rim.

Fit of extra-low-pressure tires on rims for private cars.—The American proposal on this subject was referred to the national standardizing bodies for consideration.

High-pressure tires for commercial vehicles.—The conference agreed that the practice as typified by the German proposal was general.

Low-pressure tires for commercial vehicles.—The American proposal as shown in the Tire and Rim Association *Yearbook*, 1933, page 36, columns 1, 2, and 3, was accepted. Data relating to dual spacing were omitted, owing to difficulties arising from legal enactments in various countries and long-standing practice.

Extra-low-pressure tires for commercial vehicles.—No proposals were advanced by the American delegate. Since Germany appeared to be the only country represented which had progressed to the point of formulating a range of tires of this type, the German proposal was submitted to the national standardizing bodies as a basis of study.

The American proposal for *Extra-low-pressure tires for agricultural tractors* and the German proposal for *Extra-low-pressure tires for old rims on old private cars* were also remitted to the national standardizing bodies for study.

Sizes and grouping of inner tubes: (1) For tires for commercial vehicles, and (2) for tires for passenger vehicles.—Since there was a difference of opinion in regard to the method, as well as to the value of grouping, it was decided that the various methods of grouping as followed by the different national standardizing bodies should be circulated for study.

Valves for pneumatic tires, subdivided into (1) "convertible" type and (2) valves for commercial vehicles.—All of the delegations appeared to appreciate the fundamental principle and the advantages of the convertible valve. As all of the countries concerned had not had sufficient time to become conversant with the application of the convertible valve to local conditions, however, the American and British points of view were adopted as a basis of study.

The British delegation submitted a proposal on valves for private cars comprising merely a Valve TR 17 (Schrader 5069) and a Valve TR 6 (Schrader 1231). This proposal was supported by the Austrian, Czechoslovakian, German, and Italian delegations. The American delegate was unable to support it because the complexity of American requirements necessitates eight straight and two bent valves. Since the practices of the continental countries represented at the conference, as well as that of Great Britain, were uniform, the American delegate was requested to refer the views expressed at the meeting to the American Standards Association for consideration.

Loads and inflation pressures for high-pressure pneumatic tires.—The American delegate referred to the latest American practice for commercial vehicles as given in the memorandum submitted. It was decided that the secretariat of the committee should collect information concerning the practice in each country for general circulation and study, the data to include a list of countries to which each domestic schedule applied.

Since the conference had decided not to study flat base rims for private cars, the question of loads and pressures for tires to fit these rims was not considered.

The conference invited the secretariat of the committee to collect information in a similar way on the national practices regarding *Loads and inflation pressures for low-pressure tires for commercial vehicles, as well as private cars*. This information is to be circulated for study.

Rims, tires, and valves for cycles and motorcycles.—The American delegate did not take an active part in these proceedings, the American interest for the present being limited to observing. The resolutions adopted on this subject are, therefore, not given here.

The last item on the agenda comprised various

matters. The British delegation invited an expression of opinion on a 2.25 well base rim section. This proposed new rim section, not yet in existence, is meant as an alternative to WM 3 (designed for use on motorcycles fitted with 3.50 tires). It would provide increased width between flanges, increased width of tire seat, greater depth of well, and improved flange contour. Rim WM 3, now used largely on small cars in conjunction with 4.00 inch and sometimes larger tires (for which purpose it is unsuitable) would remain for motorcycles, the proposed 2.25 rim being an alternative for light car work. The American delegate thought the proposal should be considered.

Particulars concerning the American, German, and Italian practice of gaging in connection with rim contour gages will be circulated to all countries interested.

It was decided that nothing would be gained by endeavoring to arrive at common designations for pneumatic tires.

In closing, the conference expressed its appreciation for the able leadership of its chairman, W. N. Duff, Director of Research and Standardization, Institution of Automobile Engineers (Great Britain).

J. G.

A.S.T.M. Publishes Standards on Textile Materials

As a convenience to those interested in standards for textile materials, the American Society for Testing Materials has published, in pamphlet form, all of the standard and tentative standard specifications, methods of testing, and definitions pertaining to textile materials that have been developed by the Society's Committee D-13 on Textile Materials.

The publication includes specifications and methods of testing for tire fabrics, bags, yarns, thread, light and medium weight cotton fabrics, electrical cotton yarns, asbestos yarns, silk and cotton tapes for various purposes, tubular sleeving and braids, and bagging and knit goods. Of these, several have been advanced from the status of tentative standard to that of standard this year. New tentative standards cover Holland cloth, asbestos roving, and tests for small amounts of copper and manganese and textiles.

A shrinkage test has been added as a tentative revision to the Standard Specifications for Tolerances and Test Methods for Certain Light and Medium Cotton Fabrics (A.S.T.M. D 274-29). Technical requirements of the test are the same as the requirements developed by the American Association of Textile Chemists and Colorists, and are also the same as those which appear in the Federal Specifications for Test Methods for Textiles (Federal Standard Stock Catalogue CCC-T-191), though the latter differs in form and arrangement. It is reported that this shrinkage test gives results comparable with those of the test employed by the Laundryowners National Association of the United States and Canada. The publication of this test at the present time is of exceptional importance, since specifications for shrinkage of textiles, now being actively discussed, must be based upon standard test methods.

In addition to the standards, the book includes a psychrometric relative humidity table which combines accuracy and convenience; photomicrographs of common textile fibers; and a proposed potassium dichromate oxidation method for the determination of total iron in asbestos textiles.

Copies are available at $1.00 each in heavy paper cover from the A.S.T.M., 1315 Spruce Street, Philadelphia, or may be borrowed or purchased from the American Standards Association.

Simplified Practice Recommendation for Paints and Varnishes

Simplified Practice Recommendation R144-32 covering paints, varnishes, and containers, is now available in printed form, according to an announcement by the Division of Simplified Practice of the National Bureau of Standards.

The recommendation, which was proposed and formulated by members of the industry, is the outgrowth of the Simplified Practice Limitation of Variety Recommendation No. 1, Paints and Varnishes, in which a definite maximum number of colors of paints and sizes of containers were recommended. Such maxima were recognized as limitations against further diversification, thus furnishing a basis from which the present simplified practice recommendation has been developed.

The new schedule recommends several further reductions in the number of sizes and varieties of containers used in packing various kinds of paints and varnishes.

The table, which provided, in the limitation of variety recommendation, for a maximum number of shades or tints to be produced or stocked by any one concern remains unchanged, and is included as a part of the present simplified practice recommendation.

A Review of Safety Code Projects Under ASA Procedure

The first of a series of reviews of standardization projects under the procedure of the American Standards Association

The status of all safety code projects under ASA procedure, except those relating to the mining and electrical fields, is summarized in the following review. The mining and electrical projects will be reviewed in later issues of INDUSTRIAL STANDARDIZATION AND COMMERCIAL STANDARDS MONTHLY. The data presented are taken from the files of the American Standards Association and are corrected to November 1, 1933.

A9-1929—Building Exits Code

Sponsor—National Fire Protection Association.

At the annual meeting of the National Fire Protection Association in May, 1933, the proposed report of the Building Exits Code Committee, which includes certain revisions harmonizing this code and the Building Code of the U. S. Department of Commerce, was approved. It is expected that the revised tentative draft will soon be printed and circulated to the members of the committee and other interested groups for comment and criticism.

A10—American Standards for Safety in the Construction Industry

Sponsors—American Institute of Architects; National Safety Council.

The organization meeting of this sectional committee was held in September, 1930, at which time arrangements were made for the appointment of six subcommittees, with individual chairmen, to carry on the work of the various sections of the code. These subcommittees are now at work on the preparation of drafts of the various sections.

A11-1930—Code of Lighting: Factories, Mills and Other Work Places

Sponsor—Illuminating Engineering Society.

The revision of this code, which gives recommended values and minimum requirements for illumination of various classes of industrial buildings and work places, has been widely used since its approval in 1930. The code has been recommended in a study on "The Lighting of Work Places" published by the Women's Bureau of the U. S. Department of Labor.

A12-1932—Safety Code for Floor and Wall Openings, Railings and Toe Boards

Sponsor—National Safety Council.

This code is the result of several years' work of a broadly representative technical committee and is perhaps one of the most important of the safety codes developed during the last ten years. It contains definitions and regulations applying to all places where there is a hazard of persons or materials falling through floor and wall openings, or from stairways or runways. Copies of the code were distributed to regulatory bodies, building inspectors, and other interested groups at the time of its approval.

A14-1923—Safety Code for the Construction, Care, and Use of Ladders

Sponsors—American Society of Safety Engineers—Engineering Section of National Safety Council.

On the basis of comments and criticisms received following the distribution of the last draft of this code, a final draft is now being prepared by the chairman of the committee. It is expected that it will be sent to letter ballot of the sectional committee within a few weeks and then submitted to the ASA for approval.

A17-1931—Safety Code for Elevators, Dumbwaiters, and Escalators

Sponsors—American Institute of Architects; American Society of Mechanical Engineers; U. S. Department of Commerce.

The technical committee in charge of this code is a permanent one and an annual meeting is held. At the meeting held in March of this year various revisions were given consideration which will bring the code into line with the latest engineering practice. Some of these changes, which have been referred to the sectional committee for approval, cover

pit dimensions; space for elevator machinery; materials and strength of platforms at the top of hoistways; emergency landing openings and keys; a new rule covering hoistway door interlocking switches; additions to the rules covering emergency releases required on car doors or gates; revisions of the rules covering automatic terminal stopping devices; rules covering automatic operation elevators; and rules for cables. The *Handbook for Inspectors* which will supplement the National Code has not yet been submitted for approval but when it is completed this standard will be of value as a means of giving additional information concerning the application of the provisions of the code.

A22—Safety Code for Walkway Surfaces

Sponsors—American Institute of Architects; American Society of Safety Engineers—Engineering Section of National Safety Council.

The Code Drafting Committee is still making every effort to prepare a draft for submission to the sectional committee. Following the last meeting of the Code Drafting Committee, held on February 14, 1933, a questionnaire was sent out to members of the committee asking for fundamental information from the field to determine the type of material to be included in a draft code. A report is then to be prepared for submittal to the full sectional committee summarizing the work of the subcommittee and requesting that the members use the questionnaire as a means of obtaining further practical information from industry.

A23-1932—Code for Lighting of School Buildings

Sponsors—American Institute of Architects; Illuminating Engineering Society.

This standard was prepared under the joint sponsorship of the Illuminating Engineering Society and the American Institute of Architects, and the last revision was approved as an American Standard in September, 1932.

A39—Safety Code for Window Cleaning

Sponsor—National Safety Council.

This code was recently approved by the American Standards Association, following submittal by the National Safety Council, the sponsor. A description of the code will be published in the next issue of INDUSTRIAL STANDARDIZATION AND COMMERCIAL STANDARDS MONTHLY. The code is being published and copies will be available within the next few weeks.

B7-1930—Safety Code for the Use, Care, and Protection of Abrasive Wheels

Sponsors—Grinding Wheel Manufacturers Association of the United States and Canada; International Association of Industrial Accident Boards and Commissions.

The latest revision of this code was approved in June, 1930. The code is continually under revision and the committee is now considering changes in certain provisions regarding allowable speeds for coping wheels. The permanent sectional committee also acts as a committee on interpretation of technical questions arising in the application of the code. The code has been almost universally adopted throughout the grinding wheel industry and as a basis of requirements for state regulatory bodies and insurance inspectors.

B8-1932—Safety Code for the Protection of Industrial Workers in Foundries

Sponsors—American Foundrymen's Association; National Founders' Association.

The revision of this code, which was originally approved in 1922, was developed under the joint sponsorship of the American Foundrymen's Association and the National Founders' Association. Probably the outstanding provision of the revised code is the requirement which applies to charging buggies (new equipment only) calling for the use of small-size automatic couplers. The revised code was approved as American Standard in April, 1932.

B9-1933—Safety Code for Mechanical Refrigeration

Sponsor—American Society of Refrigerating Engineers.

A revision of this code covering the refrigerant methyl formate was approved in January, 1933. The code is still under revision and a list of amendments to the present requirements has been prepared by the Subcommittee on Interpretations and Exceptions for consideration by the entire sectional committee. These amendments cover the small office-household type of air-conditioning unit which was not included in the original code.

B11-1926—Safety Code for Power Presses and Foot and Hand Presses

Sponsor—National Safety Council.

This project was originally undertaken in 1920 and approved as American Tentative Standard in 1922. The work of the committee was continued and in December, 1924, the code was advanced to

the status of American Standard. The last revision was approved in 1926.

B13-1924—Safety Code for Logging and Sawmill Machinery

The symbol of this project has been changed to O2-1924. See page 198.

B15-1927—Safety Code for Mechanical Power Transmission Apparatus

Sponsors—American Society of Mechanical Engineers; International Association of Industrial Accident Boards and Commissions; National Bureau of Casualty & Surety Underwriters.

A new section to this code, on Mechanical Power Control, has been before a special subcommittee for some time but no progress has been made during the last year owing to the difficulty of securing attendance at committee meetings under present business conditions.

B19—Safety Code for Compressed Air Machinery

Sponsors—American Society of Mechanical Engineers; American Society of Safety Engineers—Engineering Section of National Safety Council.

This committee has been inactive for several years and no meetings have been held.

B20—Safety Code for Conveyors and Conveying Machinery

Sponsors—American Society of Mechanical Engineers; National Bureau of Casualty & Surety Underwriters.

The work on this safety code has been divided into several sections and subcommittees are now at work preparing drafts which will be considered at a later date by the entire sectional committee.

B24-1927—Safety Code for Forging and Hot Metal Stamping

Sponsors—American Drop Forging Institute; National Safety Council.

This code was initiated in 1923 and approved as American Recommended Practice in April, 1927. No revision has been undertaken.

B28—Safety Code for Rubber Machinery

Sponsors—International Association of Industrial Accident Boards and Commissions; National Safety Council.

A sub-project, Safety Code for Rubber Mills and Calenders (B28a), was completed by the technical committee in charge of this code and approved as American Recommended Practice in March, 1927. The committee is at present inactive.

B30—Safety Code for Cranes, Derricks, and Hoists

Sponsors—American Society of Mechanical Engineers; U. S. Navy Department, Bureau of Yards and Docks.

A completed draft of this code was submitted to the members of the sectional committee in July, 1932. Various comments and suggestions were received as the result of the circulation of this draft and they are still being considered by the sectional committee.

D1-1925—Aeronautic Safety Code

Sponsor—Society of Automotive Engineers.

This project was developed under the joint sponsorship of the Society of Automotive Engineers and the Bureau of Standards and approved as an American Tentative Standard in 1925. The Bureau of Standards later resigned from sponsorship, leaving the S.A.E. as sole sponsor. In January, 1933, a request was received from the American Society of Mechanical Engineers for a revision of the code. The sponsor was notified of this request but the ASA has not as yet been advised as to whether or not such a revision will be undertaken. The present code is completely obsolete, necessitating its being either revised or dropped from the status of American Standard.

D2-1922—Safety Code for Automobile Headlighting—Laboratory Tests for Approval of Electric Headlighting Devices for Motor Vehicles

Sponsors—Illuminating Engineering Society; Society of Automotive Engineers.

This code was submitted for approval as an existing standard by the Illuminating Engineering Society in 1921, and was given formal approval as American Tentative Standard in November, 1922. The Illuminating Engineering Society and the Society of Automotive Engineers were then designated as co-sponsors to undertake a revision of the code. Extensive research was carried on and in January, 1928, a proposed revision was issued by the I.E.S. for trial, comment, and criticism. In October, 1932, the National Bureau of Casualty and Surety Underwriters requested the early completion of this revision as being of vital interest both from a humanitarian and from a commercial point of view. An

informal conference was held composed of members of the sponsor organizations, the National Bureau of Casualty and Surety Underwriters, and the ASA staff. It was agreed by the meeting that a sectional committee should immediately be formed to undertake the development of a comprehensive group of national specifications covering not only the technical points in the construction of headlights but also standards of service and usage. A recommendation for the organization of such a sectional committee has been received from the Illuminating Engineering Society, one of the sponsors, but no final action has as yet been taken by the Society of Automotive Engineers.

D3-1927—Safety Code for Colors for Traffic Signals

This code was developed under the sponsorship of the American Association of State Highway Officials, the Bureau of Standards, and the National Safety Council, and was approved as American Standard in November, 1927. It represents the only group of national standards which have been developed on this subject. No revision is at present being undertaken. Sponsorship has now been dissolved and the committee discharged.

D4-1927—Safety Code for Brakes and Brake Testing

Sponsors—American Automobile Association; U. S. Department of Commerce, Bureau of Standards.

A revision of this code, which was approved as American Tentative Standard in 1927, has been under way for several years, and considerable research work has been done, but owing to the lack of funds it has been impossible to complete the research work necessary. The securing of new funds will probably have to await improvement in business conditions.

D5—Manual on Street Traffic Signs, Signals, and Markings

Sponsor—American Engineering Council.

The sponsor for this project has requested that action by the ASA be delayed due to the formation of a joint committee of the American Association of State Highway Officials and the National Conference on Street and Highway Safety to bring about the coordination of the codes of the organizations. The joint committee has made very definite progress in the development of a manual following considerable research conducted by the Bureau of Standards. It is expected that the committee will complete its work by the end of the year.

K2-1927—Gas Safety Code

Sponsors—American Gas Association; U. S. Department of Commerce, Bureau of Standards.

This code was approved as an American Standard in December, 1927.

K13-1930—Code for Identification of Gas-Mask Canisters

Sponsor—National Safety Council.

This code was approved as American Recommended Practice in January, 1930. As a result of a suggestion of the German national standardizing body that the code be correlated with other national codes on the same subject, the International Standards Association was requested to appoint a committee to consider the correlation of the work of the several national standardizing bodies. No action has as yet been taken.

L1-1929—Textile Safety Code

Sponsor—National Safety Council.

Work on this code was undertaken in 1925 and was approved as American Tentative Standard in March, 1929.

O1-1930—Safety Code for Woodworking Plants

Sponsors—International Association of Industrial Accident Boards and Commissions; National Bureau of Casualty and Surety Underwriters.

This code became an American Tentative Standard in 1924. A revision was approved as American Standard in March, 1930. The sectional committee is now considering the question of dust explosions as related to woodworking establishments, but no drafts have as yet been submitted to the ASA for approval.

O2-1924—Safety Code for Logging and Sawmill Machinery

Sponsor—U. S. Department of Commerce, Bureau of Standards.

This code was approved as American Tentative Standard in January, 1924. The National Safety Council is now collecting material to be placed before the sectional committee in connection with a revision which will advance the code to a full American Standard. The sectional committee is now considering, in cooperation with the committee on dust explosions (Z12), the question of dust explosions as related to logging and sawmill operations.

P1-1925—Safety Code for Paper and Pulp Mills

Sponsor—National Safety Council.

This code was approved as American Tentative Standard in January, 1925. It is now under revision and several additions have been made to the personnel of the sectional committee. A revised draft of the code was circulated to members of the sectional committee under date of January 24, 1933, and a meeting of the committee has been held to consider the draft.

Z2-1922—Safety Code for the Protection of the Heads and Eyes of Industrial Workers

Sponsor—U. S. Department of Commerce, Bureau of Standards.

This code was approved as American Recommended Practice in 1921. It was advanced to the status of American Standard in October, 1922. A revision was undertaken in 1928 and the scope was found not to be broad enough to include gas masks and respirators. The sponsor was asked to submit a re-statement of scope for approval to cover these subjects. This statement has now been received and referred to the Committee on Scope for recommendation. A draft was submitted to the committee under date of May 26, 1933, and on June 8 further material was forwarded to the committee supplementing the draft. It is probable that some reorganization of the technical committee will be undertaken to insure that all interested groups are afforded representation.

Z4—Safety Code for Industrial Sanitation

Sponsor—U. S. Treasury Department, Bureau of the Public Health Service.

A second draft of this code was forwarded to the sectional committee under date of June 13, and the first meeting of the reorganized committee held on July 12. Various changes in the draft were considered by this meeting and the proposed revisions have been circulated to the entire committee.

Z5—Ventilation Code

Sponsor—American Society of Heating and Ventilating Engineers.

The sectional committee being formed by the sponsor is now practically completed. A meeting for the purpose of organizing the committee and developing plans for carrying on the work will be held on Tuesday, November 21, at the Engineering Societies' Building, New York.

Z8-1924—Safety Code for Laundry Machinery and Operations

Sponsors—International Association of Governmental Labor Officials; Laundry Owners National Association of U. S. and Canada; National Association of Mutual Casualty Companies.

This code was approved as American Tentative Standard in June, 1924.

Z9—Safety Code for Exhaust Systems

Sponsor—International Association of Industrial Accident Boards and Commissions.

The sponsorship for this project has been reassigned to the I.A.I.A.B.C. and the sectional committee is now nearly completed. A meeting for the purpose of organizing the committee and developing plans for carrying on the work will be held on Wednesday, November 22 in Room 1101, 29 West 39 Street, New York.

Z12—Safety Codes for the Prevention of Dust Explosions

Sponsors—National Fire Protection Association; U. S. Department of Agriculture.

Nine standards have already been approved under this general heading. This is a permanent committee and other standards having to do with the prevention of dust explosions will be submitted from time to time.

Z13—Safety Code for Amusement Parks

Sponsors—National Association of Amusement Parks; National Bureau of Casualty and Surety Underwriters.

Various sections of this code are being developed by subcommittees and several drafts have been submitted to the ASA for correlating and editing. Owing to business conditions during the past two years, however, very little progress has been made.

Z16—Standardization of Methods of Recording and Compiling Accident Statistics

Sponsors—International Association of Industrial Accident Boards and Commissions; National Council on Compensation Insurance; National Safety Council.

A final draft of Part I of this code on Definitions and Rates has been submitted to the sectional committee for letter ballot but no action has as yet been taken.

Z20—Safety Code for Grandstands

A final draft of the Subcommittee on Portable Steel and Wood Grandstands has been completed and is now being put to letter ballot of the subcommittee. It will then be submitted to the sectional committee and later to the ASA as a separate standard under the general heading of the Grandstand Code.

Z26—Specifications and Methods of Test for Safety Glass

Sponsors—National Bureau of Casualty and Surety Underwriters; U. S. Department of Commerce, Bureau of Standards.

This project was initiated in March, 1933. The following scope has been approved:

> Specifications and methods of test for safety glass (glass designed to lessen or prevent injuries resulting from accident) as used for all purposes, including wind-shields and windows of motor vehicles, motor-boats and aircraft; goggles; and bullet-proof windows and partitions.

The sponsors are now completing the personnel of the sectional committee and it is expected that the work will soon go forward.

Z28—Safety Code for Work in Compressed Air

Sponsor—International Association of Industrial Accident Boards and Commissions.

The initiation of this project and the assignment of sponsorship to the I.A.I.A.B.C. were approved in January, 1933. The sectional committee is now being formed and work will probably be started within a very short time.

The approved scope of the project under which the work of the committee will be carried on is as follows:

> Construction and operating rules for work in caissons, tunnels, or wherever workers are subjected to air under pressure higher than atmospheric; including protection from mechanical hazards, the use of necessary instruments and apparatus, provision of locks, methods of lighting, communication and decompression, the keeping of records, medical attendance, periodic inspection and air analysis, rest rooms, hours of labor, sanitation, ventilation, fire prevention, fire protection, temperature control, and other conditions of work.

A meeting for the purpose of organizing the committee and developing plans for carrying forward the work will be held on Thursday, November 23. The place of the meeting will be Room 1101, 29 West 39 Street, New York.

ASA Approves Standards on Welding Apparatus

Two standards for electric welding apparatus, developed by the Sectional Committee on Electric Welding Apparatus (C52), have been approved by the Standards Council as American Standards. They are standards for Electric Arc Welding Apparatus (C52.1-1933) and Standards for Resistance Welding Apparatus (C52.2-1933).

The Sectional Committee on Electric Welding Apparatus was organized in 1931 under the joint sponsorship of the American Institute of Electrical Engineers and the National Electrical Manufacturers Association. The scope of the project assigned to it, and approved by the Standards Council on March 12, 1931, is as follows:

> The formulation of standards for electrical welding apparatus, including definitions of terms, classification, rating, heating, efficiency, testing methods, dielectric test, standard values of current and voltage, and nameplate data.

The committee consists of representatives of five producers, six consumers, and eight general interests. The final personnel was made up after canvassing all organizations known to have any substantial interest in this subject, in accordance with the usual procedure of the American Standards Association.

The organization meeting of the committee was held on December 18, 1931. At that meeting it was agreed that the instruction to the committee should be carried out by revising the two existing A.I.E.E. standards; namely, No. 38 (March, 1925) on Electric Arc Welding Apparatus, and No. 39 (September, 1926) on Resistance Welding Apparatus.

The standards as finally submitted by the sectional committee to the sponsors and subsequently approved as American Standards are in general accord with the original A.I.E.E. standards. No radical changes have been made. A number of minor changes, however, have been made in both the definitions and in some of the technical require-

ments—the definitions having been revised to agree with those now generally accepted by the welding industry, as proposed by the Sectional Committee on Definitions of Electrical Terms (C42), and certain of the performance requirements having been revised to bring them into accord with the generally accepted current practice.

American Standard Rules for Preparing Micrographs

Standard Rules Governing the Preparation of Micrographs of Metals and Alloys (A.S.T.M. E 2-30), prepared by Committee E-4 of the American Society for Testing Materials, has been approved by the American Standards Association as American Standard and designated Z30.1-1933.

The rules cover magnifications for general use in the preparation of micrographs for metallurgical studies of metals, methods of measurement of grain size, and methods of expressing and specifying grain size of metals.

Included in the standard is also a recommended practice for photography as applied to metallography. The recommendations include magnifications for use in the preparation of macrographs; a table indicating lenses to be used for various magnifications; illumination of the specimen to be photographed; and suggestions for photographic materials to be used.

An appendix outlines recommended practice for the care of the eyes when using a metallographic microscope.

Following wide distribution by the A.S.T.M., the rules are in general use by industry. The grain-size standard micrographs are being used extensively in a number of laboratories. They have been framed by some laboratories for permanent reference, and have also been made the basis of standard laboratory reference charts.

The committee of the American Society for Testing Materials, which prepared the standard, includes in its membership representatives of many industrial concerns directly interested in metallurgical development, in addition to representatives of educational institutions, government departments, and other organizations particularly concerned with metallographic studies of metals and alloys.

The American Society for Testing Materials has been granted proprietary sponsorship to care for future revisions of the standard.

Copies may be purchased from the A.S.T.M., 1315 Spruce Street, Philadelphia, at 25 cents each; or may be borrowed or purchased from the American Standards Association. The usual 20 per cent discount is available to members of the American Standards Association.

American Standard on Gage Blanks Revised

A revision of the American Standard on Plain and Thread Plug and Ring Gage Blanks (B47-1932) has been approved by the American Standards Association. In the revised specifications, the original range of plain and thread plug gage blanks is extended to 12.010 inches maximum gaging diameter; and the range of plain and thread ring gage blanks to 12.260 inches in diameter. They also include standard designs for adjustable snap gages, adjustable length gages, twin ring gages, and combination ring and snap gages for work up to 1.135 inches in diameter.

The revised American Standard is being published by the Bureau of Standards as the Commercial Standard for Gaging Blanks (CS8-33). As a Commercial Standard it will become effective for new production on January 1, 1934, and for clearance of existing stocks on January 1, 1935. It is expected that the new pamphlet will soon be off the press.

Revision Provides Standard for Advertising Blankets

A supplement to Commercial Standard CS39-32, Wool and Part-Wool Blankets, extending the provisions of the commercial standard to the advertising of blankets as well as to their labeling for sales display, has been accepted by producers, distributors, and users and was made effective on August 15. The paragraphs which have been approved as a supplement, and which are to be added to the approved Commercial Standard are:

> "7. In advertising part wool blankets where the word 'wool' or the words 'part wool' are used in any form, the phrase 'Not Less Than —% Wool' shall, as a general rule, be shown in the same size, style, and legibility of type as the words 'part wool' and shall follow immediately after the words 'part wool,' or be set up within three consecutive lines in the follow-

ing order and relative position:

Part Wool
BLANKETS
Not Less Than —% Wool

"except in the following instances:

"(*a*) When the words 'part wool' are shown in larger than 18-point type, the phrase 'Not Less Than —% Wool' shall in no case be shown in less than 18-point type, and in no case in less than one-third the type size of the phrase 'part wool.'

"(*b*) When the words 'part wool' are shown in smaller than 18-point type, the phrase 'Not Less Than —% Wool' shall always be in not less than the same size and set in the same style of type as the words 'part wool.' "

In announcing the approval of the supplement the following statement was made by I. J. Fairchild, chief of the Division of Trade Standards, National Bureau of Standards:

"This supplement, which records the desire of the industry to control certain features of advertising and printed matter pertaining to wool blankets, is somewhat of a departure from the usual commercial standard whose elements generally pertain only to specifications for the commodity itself or the wording of the guarantee labels. Success of the attempt will depend largely upon the sincerity and tenacity of the industry in adhering thereto and will be watched with great interest."

Commercial Laboratories Join to Submit Fair Practice Code

Commercial laboratories which signed the President's Re-employment Agreement obligated themselves to cooperate in developing a Code of Fair Competition for the testing industry. As there was no trade association, the following organizations took the initiative in formulating a Code and in laying it before all commercial testing laboratories of the country which could be located: American Institute of Fertilizer Chemists, Baltimore, Maryland; Electrical Testing Laboratories, New York; Froehling and Robertson, Inc., Richmond, Virginia; Ledoux and Company, New York; Arthur D. Little, Inc., Cambridge, Massachusetts; Lucius Pitkin, Inc., New York; Pittsburgh Testing Laboratory, Pittsburgh; Skinner and Sherman, Inc., Boston; United States Testing Company, Inc., Hoboken, New Jersey.

Up to the end of October, 187 organizations concerned in commercial analysis, testing, inspection, and investigations were cooperating in this movement. This CTL (Commercial Testing Laboratories) Code was submitted to the National Recovery Administration after having passed through four revisions. Copies of it may be obtained from any of the initiating organizations named above.

At a meeting held in the United Engineering Societies' Building, October 13, 1933, representatives of the nine initiating organizations were elected, subject to NRA approval, to serve as a Code Authority and were empowered to add to their number representatives of groups of laboratories engaged in particular fields or of regions of the country not now represented. They were also authorized when, as, and if it seems expedient, to initiate a movement looking toward the organization of an association of commercial testing laboratories.

Revised Tentative Method of Sampling Coke

The American Society for Testing Materials has advised that revisions of the Tentative Method of Sampling Coke for Analysis (D 346-32 T) have just been approved for publication. The revisions are believed to improve the original method of sampling in that they (1) call attention more specifically to the unreliability of surface sampling; (2) specify the number of increments to be collected; (3) allow for an increase in the unit for sampling in case of agreement between the seller and buyer; and (4) give more specific directions for flattening the cone of coke. These revisions, after a period of trial to determine their suitability, may be adopted by the Society on the recommendation of A.S.T.M. Committee D-5 on Coal and Coke and may later affect the American Standards in this field—Methods of Laboratory Sampling and Analysis of Coal and Coke (K18-1933) (A.S.T.M. D 271-33), and Method of Sampling Coal (X1-1921) (D 21-16).

The Society has also announced that Committee D-5 on Coal and Coke has recommended that the sizes for anthracite coal, suggested by the Anthracite Institute, be accepted. Accordingly, the A.S.T.M. will publish, as tentative revisions in the Standard Method of Test for Size of Anthracite (D 310-31), the sizes of openings in testing sieves conforming to the recommendations made by the Anthracite Institute.